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SMART CITIES
ISO 14001 LEAD AUDITOR
REFRESHER TRAINING
FOR ENVIRONMENTAL SPECIALISTS
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ENVIRONMENTAL SPECIALIST CURRICULUM

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LEARNING OBJECTIVES
Environmental risks and opportunities
6.1 Actions to address risks and opportunities
6.2 Environmental objectives and planning to achieve them

WHAT ARE EMS ENVIRONMENTAL ASPECTS?

An environmental aspect is any potential interaction that your business processes have with the environment. When these interactions happen they will have an impact on the environment, either positive or negative.

Part of the requirements of ISO 14001 is to identify your environmental aspects and impacts, and determine which impacts are significant, so that you can take actions to control these significant environmental aspects.

It is by controlling these environmental aspects that you can eliminate the environmental impacts they can cause; this is how you control your environmental performance in the EMS.

WHAT ARE EMS RISKS AND OPPORTUNITIES?

While the environmental impacts that result from your environmental aspects could be an area of risk or opportunity for your business, they are not what is referred to in the ISO 14001:2015 standard when it discusses risks & opportunities.

The reason that risks and opportunities are included in the planning section of ISO 14001:2015 (section 6.1.1) is as follows:

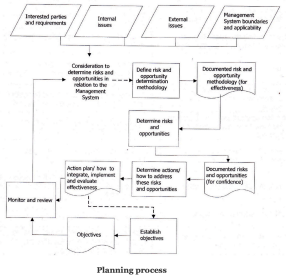
- ☑Ensure that the EMS can meet the intended outcomes
- ☑Prevent or reduce undesired effects or potential effects from the organization
- ☑Continual improvement

ENVIRONMENTAL RISKS AND OPPORTUNITIES

The new ISO 14001 standard are grouped around five key areas: leadership, strategic context, interested party analysis and communication, risks and opportunities, and life cycle perspective.

- ☑These changes are designed to increase corporate resilience and competitive advantage. Risk management is vital for every organization in every sector.
- ☑ISO 14001:2015 identifies three possible sources that present risks and opportunities to the business
  1) environmental aspects,
  2) compliance obligations, and
  3) issues and requirements from the context review.
- ☑"Risks and opportunities" is defined in ISO 14001:2015 as potential adverse effects (threats) and potential beneficial effects (opportunities).

ENVIRONMENTAL RISKS AND OPPORTUNITIES +



Planning process

This determination of risk (threats and opportunities) is intended to be subjective. It is to be based on the opinions, interpretations, and judgment of those within the organization. It does not have to be an objective determination.

It does not have to be based on numbers, calculations, or spreadsheets—although it can be if an organization so chooses. The determination of which risks & opportunities will be addressed in the EMS is the organization's decision. It is not required to be based on what any particular interested party or management system auditor thinks the decision should be.

6.1 ACTIONS TO ADDRESS RISKS AND OPPORTUNITIES

The overall intent of the processes established in 6.1.1 is to ensure that the organization is able to achieve the intended outcomes of its environmental management system, to prevent or reduce undesired effects, and to achieve continual improvement.

The organization can ensure this by determining its risks and opportunities that need to be addressed and planning action to address them These risks and opportunities can be related to environmental aspects, compliance obligations, other issues, or other needs and expectations of interested parties.

Environmental aspects can create risks and opportunities associated with adverse environmental impacts, beneficial environmental impacts, and other effects on the organization.

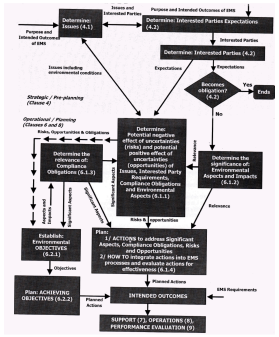
6.1 ACTIONS TO ADDRESS RISKS AND OPPORTUNITIES +

The risks and opportunities related to environmental aspects can be determined as part of the significance evaluation or determined separately. Compliance obligations can create risks and opportunities, such as failing to comply (which can damage the organization's reputation or result in legal action) or performing beyond its compliance obligations (which can enhance the organization's reputation).

The organization can also have risks and opportunities related to other issues, including environmental conditions or needs and expectations of interested parties, which can affect the organization's ability to achieve the intended outcomes of its environmental management system.

6.1 ACTIONS TO ADDRESS RISKS AND OPPORTUNITIES +

Although risks and opportunities need to be determined and addressed, there is no requirement for formal risk management or a documented risk management process. it is up to the organization to select the method it will use to determine, its. risks and opportunities. The method may involve a simple qualitative process or a full quantitative assessment depending on the context in which the organization operates. The risks and opportunities identified are inputs for planning actions and for establishing the environmental objectives.



It's tempting to want to capitalize on or mitigate all possible opportunities and risks identified, but by doing so the most important will lack the attention they require – a risk assessment process is therefore required

Under ISO 14001: 2015, organizations are free to choose the process used to assess the risks and opportunities that need to be addressed. The standard just requires that there is an approach in place to address risks and opportunities in order to ensure a successful EMS and that the intended outcomes of the EMS are achieved – with unintended effects either avoided or reduced

6.1.2. ENVIRONMENTAL ASPECTS

An organization determines its environmental aspects and associated environmental impacts and determines those that are significant and, therefore, need to be addressed by its environmental management system. Changes to the environment, either adverse or beneficial, that result wholly or partially from environmental aspects are called environmental impacts.

The environmental impact can occur at local, regional and global scales, and also can be direct, indirect, or cumulative by nature. The relationship between environmental aspects and environmental impacts is one of cause and effect. When determining environmental aspects, the organization considers a life cycle perspective.

This does not require a detailed life cycle assessment: thinking carefully about the life cycle stages that can be controlled or influenced by the organization is sufficient.

6.1.2. ENVIRONMENTAL ASPECTS +

An organization needs to determine the environmental aspects within the scope of its environmental management system. it takes into account the inputs and outputs (both intended and unintended) that are associated with its current and relevant past activities, products, and services; planned or new developments; and new or modified activities, products, and services

When determining its environmental aspects, the organization can consider: emissions to air, releases to water ,releases to land, use of raw materials and natural resources, use of energy the energy emitted e.g. heat, radiation, vibration (noise), light), generation of waste and/ or by-products; use of space.

In addition to the environmental aspects that it can control directly, an organization determines whether there are environmental aspects that it can influence.

6.1.2. ENVIRONMENTAL ASPECTS +

Consideration should be given to environmental aspects. related to the organization's activities, products, and services, such as:

- Design and development of its facilities, processes, products, and services,
- Acquisition of raw materials, including extraction operational or manufacturing processes, including warehousing
- Operation and maintenance of facilities, organizational assets, and infrastructure
- Environmental performance and practices of external providers,
- Product transportation and service delivery, including packaging,
- Storage, use and end-of-life treatment of products;
- Waste management, including reuse, refurbishing, recycling, and disposal.

6.1.3 COMPLIANCE OBLIGATIONS

ISO 14001:2015 defines Compliance obligations as "legal requirements that an organization has to comply with any other requirements that an organization has to or chooses to comply with". In the note, it further states "Compliance obligations can arise from mandatory requirements, such as applicable laws and regulations, or voluntary commitments, such as organizational and industry standards, contractual relationships, codes of practice and agreements with community groups or non-governmental organizations."

ISO 14001:2015 requires organizations to developing an understanding of their compliance obligations, both regulatory and voluntary. There is more emphasis on understanding the expectations of stakeholders and determining those that should be addressed.

Organizations meeting the new compliance requirements of ISO 14001:2015 are probably in a far better position to understand their compliance risks and reap the benefits from being able to demonstrate to stakeholders that they are fulfilling their commitments to environmental sustainability.

6.1.4 PLANNING ACTION

The organization should plan to take action to address its significant environmental aspects, compliance obligations, and its identified risks and opportunities.

The organization must integrate and implement the actions into its environmental management system processes, or other business processes.

The organization evaluates the effectiveness of these actions. While planning these actions, the organization shall consider its technological options and its financials, operational, and business requirements.

The organization plans, at a high level, the actions that have to be taken within the environmental management system to address its significant environmental aspects, its compliance obligations, and its identified risks and opportunities identified that are a priority for the organization to achieve the intended outcomes of its environmental management system.

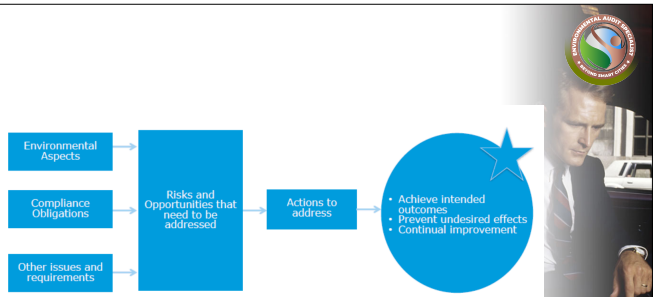
6.1.4 PLANNING ACTION

The actions planned may include establishing environmental objectives (see 6.2) or may be incorporated into other environmental management system processes, either individually or in combination.

The organization must integrate and implement the actions into its environmental management system processes, or other business processes.

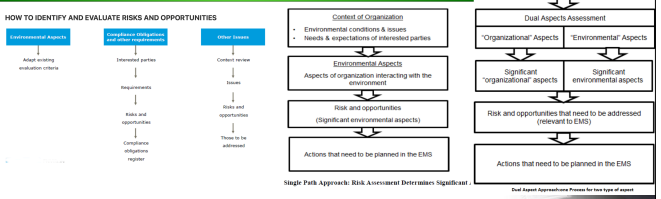
Some actions may be addressed through other management systems, such as those related to occupational health and safety or business continuity, or through other business processes related to risk, financial, or human resource management.

When considering its technological options, an organization should consider the use of the best available techniques, where economically viable, cost-effective and judged appropriate. This is not intended to imply that organizations are obliged to use environmental cost-accounting methodologies."



Option 1: Single path Approach
This process begins by identifying the context of the organization, taking into account environmental conditions and issues (4.1), and needs and expectation of interested parties (4.2) according to the scope of the Environmental Management System (4.3). After this step, the criteria are applied to assess risks and opportunities associated with environmental aspects by considering the likelihood and severity of impacts, environmental conditions and issues, and requirements of interested parties.

Option 2: Dual Aspect Approach: After applying the same process of addressing the context of the organization, option 2 uses the criteria to assess "organizational" aspects (aspects of environment interacting with the organization) and environmental aspects (aspects of organization interacting with the environment). From both these processes, a list of significant organizational aspects and significant environmental aspects will be created.



Single Path Approach: Risk Assessment Determines Significant .

Dual Aspect Approachone Process for two type of aspect

6.2 ENVIRONMENTAL OBJECTIVES AND PLANNING TO ACHIEVE THEM

6.2.1 Environmental objectives :The organization should establish environmental objectives at relevant functions and levels, taking into account the organization's significant environmental aspects and associated compliance obligations and considering its risks and opportunities. The environmental objectives should be consistent with the environmental policy, measurable (if practicable), and monitored. The environmental objectives should be communicated and updated as appropriate. The organization should maintain documented information on environmental objectives.

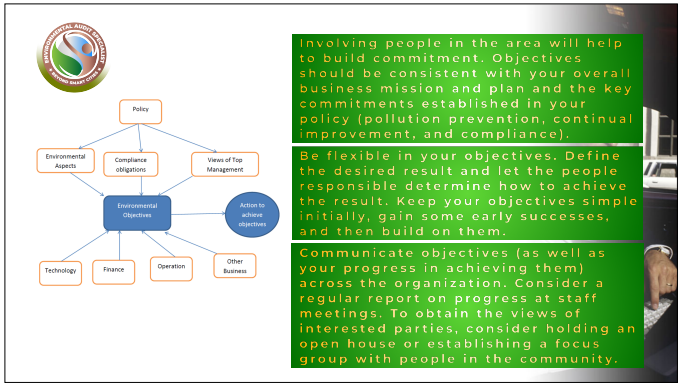
6.2.2 Planning actions to achieve environmental objectives : When planning how to achieve its environmental objectives, the organization should determine what will be done, what resources will be required, who will be responsible, when it will be completed and how the results will be evaluated, including indicators for monitoring progress toward achievement of its measurable environmental objectives. The organization should consider how actions to achieve its environmental objectives can be integrated into the organization's business processes.

6.2 ENVIRONMENTAL OBJECTIVES AND PLANNING TO ACHIEVE THEM

The Standard requires that the organization shall establish and maintain documented environmental objectives at each relevant function and level within the organization. Objectives help you translate purpose into action — they should be factored into your strategic plan and can facilitate the integration of environmental management with other business management processes.

Objectives should be the longer-term goals derived naturally from the environmental policy. It should be understood that each identified significant aspect will have an associated objective or objectives in some cases.

Objectives should be set by the people in the functional area involved — they will be best positioned to establish, plan for, and achieve these goals. Involving people in the area will help to build commitment.


Policy
Environmental Aspects
Compliance obligations
Views of Top Management
Environmental Objectives
Action to achieve objectives
Technology
Finance
Operation
Other Business
Involving people in the area will help to build commitment. Objectives should be consistent with your overall business mission and plan and the key commitments established in your policy (pollution prevention, continual improvement, and compliance).
Be flexible in your objectives. Define the desired result and let the people responsible determine how to achieve the result. Keep your objectives simple initially, gain some early successes, and then build on them.
Communicate objectives (as well as your progress in achieving them) across the organization. Consider a regular report on progress at staff meetings. To obtain the views of interested parties, consider holding an open house or establishing a focus group with people in the community.

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